

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A composition comprising a polymer (A) containing 45% or more by mass of an ethylene unit as a repeating unit crosslinked with an organic peroxide (B), wherein said organic peroxide (B) is selected from the group consisting of t-butylhydroperoxide, 1,1,3,3-tetramethyl butylhydroperoxide, p-menthane hydroperoxide, cumenhydroperoxide, diisopropyl-benzenhydroperoxide, 2,5-dimethylhexane-2,5-dihydroperoxide, 1,1-bis(t-butylperoxy)cyclododecane, 2,2-bis(t-butylperoxy)octane, ~~1,1-di-t-butylperoxycyclohexane~~, 2,5-dimethyl-2,5-di(t-butylperoxy)hexyne, 1,3-bis(t-butylperoxy-isopropyl)benzene, m-tolyl-peroxide, p-chlorobenzoylperoxide, 2,4-dicyclobenzoylperoxide, t-butylperoxy-isobutylate, t-butylperoxy-2-ethylhexanoate, ~~t-butylperoxybenzoate~~, t-butylperoxy-isopropylcarbonate, and t-butylperoxy-allylcarbonate.

2. (Currently Amended) A composition comprising a polymer (A) containing 45% or more by mass of an ethylene unit as a repeating unit crosslinked with an organic peroxide (B) and is foamed with a foaming agent (C), wherein said organic peroxide (B) is selected from the group consisting of t-butylhydroperoxide, 1,1,3,3-tetramethyl butylhydroperoxide, p-menthane hydroperoxide, cumenhydroperoxide, diisopropyl-benzenhydroperoxide, 2,5-dimethylhexane-2,5-dihydroperoxide, 1,1-bis(t-butylperoxy)cyclododecane, 2,2-bis(t-butylperoxy)octane, ~~1,1-di-t-butylperoxycyclohexane~~, 2,5-dimethyl-2,5-di(t-butylperoxy)hexyne, 1,3-bis(t-butylperoxy-isopropyl)benzene, m-tolyl-peroxide, p-chlorobenzoylperoxide, 2,4-dicyclobenzoylperoxide, t-butylperoxy-isobutylate, t-butylperoxy-2-ethylhexanoate, ~~t-butylperoxybenzoate~~, t-butylperoxy-isopropylcarbonate, and t-butylperoxy-allylcarbonate.

3. (Withdrawn) A laminated body for laser processing comprising a polymer layer for laser processing obtained by crosslinking a polymer composition containing an ethylenic

copolymer and a base layer laminated to one side of a surface of said polymer layer for laser processing, wherein both layers are capable of being peeled from each other at the interface.

4. (Withdrawn) The laminated body for laser processing according to claim 3, wherein the peel strength is in the range of 2 to 40 N/cm when said polymer layer is peeled from said base layer at the interface with a peeling rate of 5 cm/min at 180 degrees.

5. (Withdrawn) The laminated body for laser processing according to claim 3, wherein said polymer composition comprises a polymer (A) containing 45% or more by mass of an ethylene unit as a repeating unit and an organic peroxide (B).

6. (Withdrawn) The laminated body for laser processing according to claim 5, wherein said base layer is formed using a photopolymerizable composition, wherein a photopolymerizable composition comprising an elastomer and a compound having an ethylenical unsaturated group and a photoinitiator is photocured.

7. (Withdrawn) A method for producing a laminated body for laser processing comprising:

a step for forming a polymer sheet by crosslinking a polymerizable composition containing an ethylenic copolymer;

a step for laminating a photopolymerizable layer containing an elastomer and a compound having an ethylenical unsaturated group and a photocuring initiator to the surface of the polymer sheet; and

a step for irradiating ultraviolet ray to one side of said photopolymerizable layer and photocuring said photopolymerizable layer to form a base sheet.

8. (Withdrawn) A flexographic printing plate being characterized in that made of a polymeric material for laser processing that a polymer composition comprising a polymer (A)

containing 45% or more by mass of an ethylene unit as a repeating unit and an organic peroxide (B) is crosslinked.

9. (Withdrawn) A flexographic printing plate being characterized in that made of a polymeric material for laser processing that a polymer composition comprising a polymer (A) containing 45% or more by mass of an ethylene unit as a repeating unit and an organic peroxide (B) and a foaming agent (C) is crosslinked and foamed.

10. (Withdrawn) A flexographic printing plate being characterized in that a printing pattern is formed by engraving the surface of said polymer layer for laser processing in the laminated body for laser processing comprising a polymer layer for laser processing obtained by crosslinking a polymer composition containing an ethylenic copolymer and a base layer laminated to one side of a surface of said polymer layer for laser processing, wherein both layers are capable of being peeled from each other at the interface, with laser processing.

11. (Withdrawn) A flexographic printing plate according to claim 10, wherein the peel strength is in the range of 2 to 40 N/cm when said polymer layer is peeled from said base layer at the interface with a peeling rate of 5 cm/min at 180 degrees.

12. (Withdrawn) A flexographic printing plate according to claim 10, wherein a film of polymer resin is laminated on the other surface of said base layer of said laminated body for laser processing.

13. (Withdrawn) A method for producing a flexographic printing plate comprising:
a step for making a printing pattern by engraving the surface of said polymer layer for laser processing in the laminated body for laser processing comprising a polymer layer for laser processing obtained by crosslinking a polymer composition containing an ethylenic copolymer and a base layer laminated to one side of a surface of said polymer layer for laser processing, wherein both layers are capable of being peeled from each other at the interface;

a step for cutting said polymer layer for laser processing along said printing pattern;
and

a step for peeling a region which said printing pattern of said polymer layer for laser processing has not been formed from said base layer.

14. (Currently Amended) A seal made of a polymer composition comprising a polymer (A) containing 45% or more by mass of an ethylene unit as a repeating unit crosslinked with an organic peroxide (B), wherein said organic peroxide (B) is selected from the group consisting of t-butylhydroperoxide, 1,1,3,3-tetramethyl butylhydroperoxide, p-menthane hydroperoxide, cumenhydroperoxide, diisopropyl-benzenhydroperoxide, 2,5-dimethylhexane-2,5-dihydroperoxide, 1,1-bis(t-butylperoxy)cyclododecane, 2,2-bis(t-butylperoxy)octane, 1,1-di-t-butylperoxycyclohexane, 2,5-dimethyl-2,5-di(t-butylperoxy)hexyne, 1,3-bis(t-butylperoxy-isopropyl)benzene, m-tolyl-peroxide, p-chlorobenzoylperoxide, 2,4-dicyclobenzoylperoxide, t-butylperoxy-isobutylate, t-butylperoxy-2-ethylhexanoate, t-butylperoxybenzoate, t-butylperoxy-isopropylcarbonate, and t-butylperoxy-allylcarbonate.

15. (Currently Amended) A seal made of a polymer composition comprising a polymer (A) containing 45% or more by mass of an ethylene unit as a repeating unit crosslinked with an organic peroxide (B) and is foamed with a foaming agent (C), wherein said organic peroxide (B) is selected from the group consisting of t-butylhydroperoxide, 1,1,3,3-tetramethyl butylhydroperoxide, p-menthane hydroperoxide, cumenhydroperoxide, diisopropyl-benzenhydroperoxide, 2,5-dimethylhexane-2,5-dihydroperoxide, 1,1-bis(t-butylperoxy)cyclododecane, 2,2-bis(t-butylperoxy)octane, 1,1-di-t-butylperoxycyclohexane, 2,5-dimethyl-2,5-di(t-butylperoxy)hexyne, 1,3-bis(t-butylperoxy-isopropyl)benzene, m-tolyl-peroxide, p-chlorobenzoylperoxide, 2,4-dicyclobenzoylperoxide, t-butylperoxy-isobutylate, t-

butylperoxy-2-ethylhexanoate, ~~t-butylperoxybenzoate~~, t-butylperoxy-isopropylcarbonate, and t-butylperoxy-allylcarbonate.

16. (Previously Presented) The composition according to claim 1, further comprising a crosslinkable monomer selected from the group consisting of ethylene glycol di-methacrylate, polyethyleneglycol di-methacrylate, trimethylol propane tri-acrylate, allyl methacrylate, triallyl cyanulate, triallyl iso-cyanulate, diallyl phthalate, divinyl adipate, maleic anhydride, N, N-m-phenylene-bis-maleimide, divinylbenzene, diallyl maleimide, diphenylguanidine in said polymer composition.

17. (Previously Presented) The composition according to claim 1, wherein the content of said ethylene unit is 45 to 97% by mass.

18. (Previously Presented) The composition according to claim 1, further comprising a reinforcing agent selected from the group consisting of a carbon black, calcium carbonate, a complex of calcium carbonate and magnesium carbonate, magnesium carbonate, dry silica, wet silica, colloidal silica, clay and talc, and a plasticizer selected from the group consisting of an aromatic process oil, a naphthenic process oil and a paraffinic process oil.

19. (Currently Amended) A composition comprising a crosslinked polymer obtained by kneading a polymer containing 45% or more by mass of an ethylene unit as a repeating unit and a unit formed by at least one monomer selected from the group consisting of an α -olefin and a non-conjugated polyene as a repeating unit, and a reinforcing agent and a plasticizer to a first composition, further kneading said first composition, an organic peroxide and a crosslinkable monomer to a second composition, and heating said second composition, wherein said organic peroxide is selected from the group consisting of t-butylhydroperoxide, 1,1,3,3-tetramethyl butylhydroperoxide, p-menthane hydroperoxide, cumenhydroperoxide, diisopropyl-benzenhydroperoxide, 2,5-dimethylhexane-2,5-dihydroperoxide, 1,1-bis(t-

butylperoxy)cyclododecane, 2,2-bis(t-butylperoxy)octane, ~~1,1-di-t-butylperoxy~~cyclohexane, 2,5-dimethyl-2,5-di(t-butylperoxy)hexyne, 1,3-bis(t-butylperoxy-isopropyl)benzene, m-tolylperoxide, p-chlorobenzoylperoxide, 2,4-dicyclobenzoylperoxide, t-butylperoxy-isobutylate, t-butylperoxy-2-ethylhexanoate, ~~t-butylperoxybenzoate~~, t-butylperoxy-isopropylcarbonate, and t-butylperoxy-allylcarbonate.

20. (Previously Presented) The composition according to claim 2, further comprising a crosslinkable monomer selected from the group consisting of ethylene glycol dimethacrylate, polyethyleneglycol di-methacrylate, trimethylol propane tri-acrylate, allyl methacrylate, triallyl cyanulate, triallyl iso-cyanulate, diallyl phthalate, divinyl adipate, maleic anhydride, N, N-m-phenylene-bis-maleimide, divinylbenzene, diallyl maleimide, diphenylguanizine in said polymer composition.

21. (Previously Presented) The composition according to claim 2, wherein the content of said ethylene unit is 45 to 97% by mass.

22. (Previously Presented) The composition according to claim 2, further comprising a reinforcing agent selected from the group consisting of a carbon black, calcium carbonate, a complex of calcium carbonate and magnesium carbonate, magnesium carbonate, dry silica, wet silica, colloidal silica, clay and talc, and a plasticizer selected from the group consisting of an aromatic process oil, a naphthenic process oil and a paraffinic process oil.

23. (Currently Amended) A composition comprising a crosslinked polymer obtained by kneading a polymer containing 45% or more by mass of an ethylene unit as a repeating unit and a unit formed by at least one monomer selected from the group consisting of an α -olefin and a non-conjugated polyene as a repeating unit, and a reinforcing agent and a plasticizer to a first composition, further kneading said first composition, an organic peroxide, a crosslinkable monomer and a foaming agent to a second composition, and heating

said second composition, wherein said organic peroxide is selected from the group consisting of t-butylhydroperoxide, 1,1,3,3-tetramethyl butylhydroperoxide, p-menthane hydroperoxide, cumenhydroperoxide, diisopropyl-benzenhydroperoxide, 2,5-dimethylhexane-2,5-dihydroperoxide, 1,1-bis(t-butylperoxy)cyclododecane, 2,2-bis(t-butylperoxy)octane, ~~1,1-di-t-butylperoxycyclohexane~~, 2,5-dimethyl-2,5-di(t-butylperoxy)hexyne, 1,3-bis(t-butylperoxy-isopropyl)benzene, m-tolyl-peroxide, p-chlorobenzoylperoxide, 2,4-dicyclobenzoylperoxide, t-butylperoxy-isobutylate, t-butylperoxy-2-ethylhexanoate, ~~t-butylperoxybenzoate~~, t-butylperoxy-isopropylcarbonate, and t-butylperoxy-allylcarbonate.

24. (Previously Presented) The seal according to claim 14, further comprising a crosslinkable monomer selected from the group consisting of ethylene glycol di-methacrylate, polyethyleneglycol di-methacrylate, trimethylol propane tri-acrylate, allyl methacrylate, triallyl cyanulate, triallyl iso-cyanulate, diallyl phthalate, divinyl adipate, maleic anhydride, N, N-m-phenylene-bis-maleimide, divinylbenzene, diallyl maleimide, diphenylguanizine in said polymer composition,

25. (Previously Presented) The seal according to claim 14, further comprising a reinforcing agent selected from the group consisting of a carbon black, calcium carbonate, a complex of calcium carbonate and magnesium carbonate, magnesium carbonate, dry silica, wet silica, colloidal silica, clay and talc, and a plasticizer selected from the group consisting of an aromatic process oil, a naphthenic process oil and a paraffinic process oil.

26. (Previously Presented) The seal according to claim 15, further comprising a crosslinkable monomer selected from the group consisting of ethylene glycol di-methacrylate, polyethyleneglycol di-methacrylate, trimethylol propane tri-acrylate, allyl methacrylate, triallyl cyanulate, triallyl iso-cyanulate, diallyl phthalate, divinyl adipate,

maleic anhydride, N, N-m-phenylene-bis-maleimide, divinylbenzene, diallylmaleimide, diphenylguanizine in said polymer composition.

27. (Previously Presented) The seal according to claim 15, further comprising a reinforcing agent selected from the group consisting of a carbon black, calcium carbonate, a complex of calcium carbonate and magnesium carbonate, magnesium carbonate, dry silica, wet silica, colloidal silica, clay and talc, and a plasticizer selected from the group consisting of an aromatic process oil, a naphthenic process oil and a paraffinic process oil.

SUPPORT FOR THE AMENDMENT

Claims 1, 2, 14, 15, 19, and 23 have been amended.

The amendment of Claims 1, 2, 14, 15, 19, and 23 is supported by the corresponding claims as originally filed and pages 10-49 as originally filed.

No new matter has been entered by the present amendment.